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| APPLICATION NO.                  | FILING DATE                                     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|---|----------------------|---------------------|------------------|
| 10/578,777                       | 05/09/2006                                      | Takuji Kaya          | 060362              | 6190             |
|                                  | 7590 05/05/201<br>T <b>OS &amp; HANSON</b> , LL | EXAMINER             |                     |                  |
| 1420 K Street, N.W.<br>4th Floor |   |                      | PATTERSON, MARC A   |                  |
| WASHINGTON, DC 20005             |   |                      | ART UNIT            | PAPER NUMBER     |
|                                  |   |                      | 1782                |                  |
|                                  |   |                      |                     |                  |
|                                  |   |                      | MAIL DATE           | DELIVERY MODE    |
|                                  |   |                      | 05/05/2010          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.  | Applicant(s)   |  |  |  |
|--|--|--|--|--|--|
|  | 10/578,777   | KAYA ET AL.  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit   |  |  |  |
|  | MARC A. PATTERSON  | 1782   |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | pears on the cover sheet with the c  | orrespondence address  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D/ - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONEI | l. lely filed the mailing date of this communication. (35 U.S.C. § 133). |  |  |  |
| Status   |  |  |  |  |  |
| Responsive to communication(s) filed on 30 Decay This action is <b>FINAL</b> .      Since this application is in condition for alloware closed in accordance with the practice under Expression 1. ■ 1. ■ 1. ■ 1. ■ 1. ■ 1. ■ 1. ■ 1.  | action is non-final.<br>nce except for formal matters, pro   |  |  |  |  |
| Disposition of Claims  |  |  |  |  |  |
| <ul> <li>4) ☐ Claim(s) 1-3 and 5-12 is/are pending in the appearance of the above claim(s) is/are withdraw 5) ☐ Claim(s) is/are allowed.</li> <li>6) ☐ Claim(s) 1-3 and 5-12 is/are rejected.</li> <li>7) ☐ Claim(s) is/are objected to.</li> <li>8) ☐ Claim(s) are subject to restriction and/o</li> </ul>  | wn from consideration.   |  |  |  |  |
| Application Papers   |  |  |  |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomposed and all accomposed and all all accomposed and are specified as a specific product of the second and accomposed are specified as a specific product of the second are specified as a spec | epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj  | ected to. See 37 CFR 1.121(d).   |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |  |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 4) ☐ Interview Summary<br>Paper No(s)/Mail Da<br>5) ☐ Notice of Informal P   | te   |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application  6) Other:   |  |  |  |  |  |

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### **DETAILED ACTION**

### WITHDRAWN REJECTIONS

- 1. The 35 U.S.C. 103(a) rejection of Claims 1 6 and 9 12 as being unpatentable over Ezawa et al. (U.S. Patent No. 4,966,805) in view of Komiya et al (U.S. Patent No. 4,704,445), of record on page 2 of the previous Action, is withdrawn.
- 2. The 35 U.S.C. 103(a) rejection of Claims 7 8 as being unpatentable over Ezawa et al. (U.S. Patent No. 4,966,805) in view of Komiya et al (U.S. Patent No. 4,704,445) and further in view of Eckes et al (U.S. Patent No. 4,812,492), of record on page 2 of the previous Action, is withdrawn.

#### NEW REJECTIONS

## Claim Rejections – 35 USC § 103(a)

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-3, 5-6 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al (Japanese Patent No. 01037323) in view of Komiya et al (U.S. Patent No. 4,704,445).

With regard to Claims 1-3, 5-6 and 9-12, Murakami et al discloses a label having an adhesive coating film having a thickness of 0.1 to 10  $\mu$ m and the label is polyolefin having a

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shrinkage of more than 50% in one direction and a thickness of 10 to 100 µm (the shrinkage is thermal contraction ratio, of more than 10%; English Abstract). The claimed aspect of the film being for bonding to a PET bottle having alternately projecting and sunken portions is directed to an intended use and is therefore given little patentable weight. However, Murakami et al disclose a bottle (Figure), and it therefore would have been obvious for one of ordinary skill in the art to provide for a bottle comprising PET. Murakami et al fail to disclose a peel strength after keeping the film in contact with a PET film in pressure contact with each other at 8.5 MPa in a 40 degree Celsius atmosphere for 24 hours within the range of 5 N/50 mm to 17 N/50 mm.

Komiya et al teach a polyurethane having a number average molecular weight of 500 to 100,000, therefore softening point of 30 to 50 degree Celsius (column 4, lines 43 - 47) that is an adhesive, for the purpose of providing an adhesive having high bond strength (column 5, lines 35 - 45). One of ordinary skill in the art would therefore have recognized the advantage of providing for the adhesive of Komiya et al in Murakami et al, which comprises an adhesive, depending on the desired adhesion of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a polyurethane having a number average molecular weight of 500 to 100,000 and softening point of 30 to 50 degree Celsius in Murakami et al in order to obtain an adhesive having high bond strength as taught by Komiya et al. Murakami et al would therefore have a peel strength after keeping the film in contact with a PET film in pressure contact with each other at 8.5 MPa in a 40 degree Celsius atmosphere for 24 hours within the range of 5 mN/50 mm to 17 N/50 mm.

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With regard to Claim 9, the claimed aspect of the coating being formed by gravure coating is directed to a process limitation and is therefore given little patentable weight.

With regard to Claim 10, the adhesive taught by Komiya et al has a solids content of 80% by weight (column 4, lines 35 - 43), therefore viscosity of 5 to 60 second/Zahn cup #3.

5. Claims 7 - 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al (Japanese Patent No. 01037323) in view of Komiya et al (U.S. Patent No. 4,704,445) and further in view of Eckes et al (U.S. Patent No. 4,812,492).

Murakami et al and Komiya et al disclose a label having a polyurethane as discussed above. With regard to Claims 7 - 8, Murakami et al and Komiya et al fail to disclose a polyurethane having a pigment comprising titanium oxide.

Eckes et al teach a polyurethane pigment comprising titanium oxide (column 2, lines 37 - 56) for the purpose of obtaining a polyurethane for use as an ink (column 1, lines 5 - 9). One of ordinary skill in the art would therefore have recognized the advantage of providing for the pigment of Eckes et al in Murakami et al and Komiya et al, which comprises a polyurethane, depending on the desired use as an ink of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time

Applicant's invention was made to have provided for a pigment comprising titanium oxide in

Murakami et al and Komiya et al in order to obtain a polyurethane for use as an ink as taught by

Eckes et al.

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# ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 1 – 6 and 9 – 12 as being unpatentable over Ezawa et al. (U.S. Patent No. 4,966,805) in view of Komiya et al (U.S. Patent No. 4,704,445) and 35 U.S.C. 103(a) rejection of Claims 7 – 8 as being unpatentable over Ezawa et al. (U.S. Patent No. 4,966,805) in view of Komiya et al (U.S. Patent No. 4,704,445) and further in view of Eckes et al (U.S. Patent No. 4,812,492), of record in the previous Action, have been considered and have been found to be persuasive. The rejections are therefore withdrawn. The new rejections above are directed to amended Claims 1 - 3 and 5 - 12.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/ Primary Examiner, Art Unit 1782